

15

SUB SPEC: PHB 34365US

~~Abstract~~

ACTIVE MATRIX ARRAY DEVICES

5 ABSTRACT OF THE DISCLOSURE

An active matrix array device, such as an AMLCD, has an array of matrix elements (10) addressed via sets of address conductors (14, 16). An address circuit (35) connected to one set (16) comprises a multiplexing circuit (31) integrated on the same substrate (25) as the matrix elements which has a plurality of signal bus lines (33), the one set of address conductors being organised in groups with each conductor in a group being associated with a respective and different signal bus line and the groups being addressed in sequence. Each signal bus line is connected to a respective signal processing circuit (42), e.g. a D/A converter or sample and hold circuit in the case of an AMLCD, which is also integrated on the substrate. To avoid problems in use due to the manner of fabrication of these circuits and the operation of the multiplexing circuit, the address circuit is arranged so that the individual signal processing circuits associated with adjacent column conductors are located close together on the substrate.

20

Figure 4.